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SOIL MULCHING FOR

*Beautiful
Lawns*

AND GARDENS



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PREPARING THE SOIL...

Soil conditioning is more than just preparing it for seed; more than just "working" the earth. Turning soil over *does* prepare it *mechanically* to receive plants or seeds—but for

good growing results certain materials must be added to replenish the all-important humus and nutrient contents.

Addition of outside material containing organic matter is of benefit to the soil in these three specific ways:

1. The mechanical condition, or friability, of the soil is improved.
2. Humus, or humus-making material, is added.
3. Plant foods, either available or potential, are invested.

Primarily we condition soils for better plant growth—a goal reached by a proper balance of four *basic requirements* as follows:

**MOISTURE
AIR
HEAT
NUTRIENTS**

To obtain the best results in our gardens and lawns we always must keep these four factors in mind. For instance, since we know moisture is a basic requirement, any soil conditioning which helps to maintain a proper balance of moisture will be profitable to the gardener.

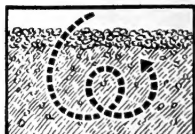
Formulas for obtaining the desired moisture balance in soils vary because soils, themselves, vary in physical properties. Some are so heavy and compact that a certain amount of moisture will make them sticky or mucky and too wet for best plant growth. Other soils may be so light or open in texture that they will not hold the required amount of moisture.

HOW TOPPER HELPS THE GARDENER

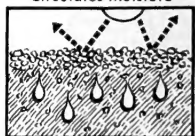
TOPPER is a specially prepared mulch for soil conditioning, a forest product development of the Weyerhaeuser Timber Company. It is composed of small cork flakes, scientifically recovered from Douglas fir bark. TOPPER is clean, free of weed seeds and decomposes slowly. The TOPPER cork flakes, when mixed with soil, are ideal for conditioning it to maintain correct moisture content.

FOR EXAMPLE: The very fine particles which make up *heavy soils* are readily separated by the cork flakes of TOPPER, allowing better drainage and aeration. *This one simple act of soil conditioning changes the texture of the heavy soil, allows for more air spaces, regulates the moisture content and adds humus-building material.* This conditioning should be done to a depth of five or six inches in most garden soils. In some instances, where the subsoil is exceptionally hard, it will be advantageous to work in TOPPER to a greater depth.

LIGHT SANDY SOILS, or soils containing a large amount of coarse sand or gravel, often are deficient in humus. This allows moisture to drain through it, creating no reservoir for dry weather. There are two ways of using TOPPER for this type soil. One is to incorporate



Circulates Moisture



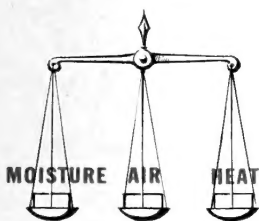
Keeps out Sun
Holds Moisture

it thoroughly to a depth of five or six inches—the second is to use it as a mulch during the growing season.

Unlike peat moss, TOPPER does not absorb water, being a cork substance, but allows a film of moisture to accumulate around its surface and holds it for use of feeding roots. As a mulch, TOPPER remains dry, acting as an insulator which prevents transpiration of moisture from the soil.

HUMUS IN RELATION TO MOISTURE, AIR and HEAT

Although moisture is only *one* of the four basic factors for plant growth, it regulates to a great degree the amount of two other factors—soil air and heat. We know that wet soil is cooler than dry soil. As water is added, soil air is driven out. The perfect soil conditioner, therefore, would be one in which there is the right amount of moisture, air and soil temperature for a healthy plant growth. TOPPER assists in bringing about this condition, when mixed in the soil or used as a mulch.



IN BALANCE

The amount and texture of humus in the soil regulates its moisture-holding quality and controls the degree of air and heat. Although it takes TOPPER from one-and-a-half to two years to fully decompose and become humus, after it has been incorporated in the soil, it has somewhat the same effect as humus in regulating moisture, air and temperature in the soil.

Why Organic Materials must be added

Virgin soils are kept balanced by the return to the ground each year of a certain amount of vegetation in the form of leaves, grass stems, twigs, etc., while surface-feeding roots are allowed to decompose and become humus. Clean cultivation, together with the removal of crops, not only robs the soil of needed humus-making material, but the stirring of the soil adds oxygen which causes soil bacteria to break down the organic matter at a more rapid rate. One result is a serious loss of nitrogen which is largely stored in organic matter and released by its decay.

Continuous cultivation without the return of organic material will result in unproductiveness. Even with the regular application of commercial fertilizers, it is necessary to add other organic materials. TOPPER is organic and will become humus when fully decomposed. To hasten in this decomposition it will be beneficial and desirable to add about a pound of sulphate of ammonia to a bag of TOPPER. If this is done, in addition to the regular feeding of a complete fertilizer, there will be a resulting soil condition which will help to regulate *moisture, air, temperature* and all the *plant nutrients* required for the average crop or garden.



PLOW THEM UNDER!

USING A MULCH TO PRESERVE MOISTURE

With many crops and types of gardens, clean cultivation is necessary—but where it is at all possible to use a mulch, it will prove a wise method of gardening. A **MULCH** is any kind of vegetation or litter used to cover the surface of the ground to protect it from the effects of sun, wind, heat or cold. There is great variance in the effectiveness of various mulch materials.

One of the principal uses of a mulch is to preserve moisture. A common practice has been to maintain a dust mulch by continuous cultivation or working of the soil. This method, however, destroys the surface roots and accelerates the breakdown of organic material. Use of a mulch, such as **TOPPER**, which will remain dry on the surface and retain the moisture in the soil, gives a two-fold result. *First*, there is the saving of labor required for cultivation, and, *second*, besides adding humus-making material, protection is afforded to surface-feeding roots which eventually build up the topsoil.



**BUILDS UP
TOPSOIL
AS WELL!**

Mulching is Nature's Way...

We, somehow, have gotten the idea that soil must be plowed and cultivated to keep it open and porous. Yet, we know that new, or virgin, soils are many times more productive and of finer texture than land which has been in cultivation for many years. When **TOPPER** is used in the garden as a mulch, or placed under trees or shrubs, it forms a carpet, similar to that of nature, in providing a protection for the soil as well as returning humus to the soil. Thus, the texture and mechanical condition of the soil is improved.



TOPPER AS A MULCH...

TOPPER is attractive in appearance, remains dry, clean of weeds and ideal to walk upon. Used as a mulch under flowering shrubs, such as rhododendrons, azaleas, camellias, etc., **TOPPER** will remain in good condition two or three years.

As a mulch under strawberries, perennials, bulbs and other flowers and fruits, **TOPPER** is clean, attractive, beneficial and helps to keep down weeds.

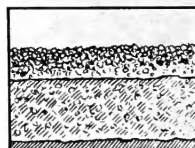
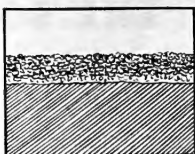


**CLEAN,
DRY**

**EASY TO
WALK ON**

TOPPER IS IDEAL for LAWNS

In preparing soil for a new lawn, unless the finest kind of topsoil is used, spread one to two inches of TOPPER over the surface and work it in to a depth of four to six inches. If, after this process, the soil still is somewhat sticky or heavy on top, add another half inch of TOPPER and rake it into the surface to make it more friable and easier to work when the seed is applied and the final leveling and rolling is done. If seeding is done in warm weather, scatter a thin layer of TOPPER over the surface for protection. Be sure that the soil has been enriched by adding plenty of good fertilizer to be worked down into the soil along with the TOPPER. TOPPER is not a fertilizer, but is a superior garden mulch and soil conditioner.



TOPPER FOR OLD LAWNS

For old lawns, top dress with TOPPER in the fall and spring, and once or twice during the growing season, to form a protective mulch at the crown of the grass. This not only aids in holding moisture, but tends to build up the soil. One bag of TOPPER will cover from 200 to 300 square feet of lawn, or about five bags to the average lawn. During one top dressing each year it will be beneficial to add a pound of sulphate of ammonia to a bag of TOPPER. Because of its texture and uniform size, TOPPER spreads easily and quickly. TOPPER goes further than other materials. Therefore, don't use too much; no more than is recommended on the bag. TOPPER may be applied easily with an ordinary fertilizer spreader, or mixed with fertilizer and two jobs are done at the same time.

MORE USES FOR TOPPER

In the greenhouse and potting shed, TOPPER has proved of value when mixed with either seed soil or transplanting soil, in flats or for potted plants. The addition of TOPPER at the rate of one part in eight or ten (no more than this amount is required) will make the soil easier to work, keep it more porous and prevent baking. A thin layer of TOPPER scattered over the surface of seed or transplanted flats will prevent growth of algae and certain fungi.



For the nursery and lath-house, TOPPER is ideal as a mulch for conserving moisture, for weed control and for maintaining the natural acid condition of the soil. It is especially recommended for acid-loving plants.



For the campus, golf course, cemetery or large estate, TOPPER can be applied the most economically of any type of mulch or top dressing for lawns. It is easily applied with any type of spreader. When purchased in large quantities it is economical as well as practical and easy to apply.



As a medium for storing bulbs that must be kept over winter, or for shipping lilies and other bulbs, TOPPER is an ideal packing material.

Look for this bag
at your seed store.

IT CONTAINS A
SUPERIOR GARDEN MULCH



Loosens soil . . . Dry, easy to handle
... Protects plant roots . . . No weed
seeds . . . Long-lasting . . . Use it in
your spreader . . . Holds soil moisture
... Instructions on every bag.

★ Use it in your
Spreader ★



TOPPER is granular, free-flowing. Nothing to breakup, screen or make a mess. A 40-lb. bag of TOPPER provides coverage for 300 square feet of lawn area.

TOPPER is a product of
Weyerhaeuser Development

THE INLAND SEED CO.
So. 120 Howard Street
Spokane 8, Wn.

